ADDENDUM TO THE FACT SHEET
FOR NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES)
PERMIT NO. WA0037541

I. GENERAL INFORMATION

Facility: Longview Energy Development, LLC
19 International Way
Longview, WA 98632

Facility Contact: Wayne Mays, Senior Vice President
Continental Energy Services, Inc.
1120 NW Couch Street, Suite 650
Portland, OR 97209

II. APPLICATION REVIEW

An application for permit reissuance was submitted to the Department of Ecology (Department) on December 22, 2004, and accepted by the Department on January 9, 2006. The scope and manner of any review of an application for replacement of permit by the Department shall be sufficiently detailed as to insure the following:

- That the Permittee is in substantial compliance with all of the terms, conditions, requirements and schedules of compliance of the expired permit;
- That the Department has up-to date information on the Permittee's production levels; Permittee's waste treatment practices; nature, content, and frequencies of Permittee's discharge; either pursuant to the submission of new forms and applications or pursuant to monitoring records and reports resubmitted to the Department by the permittee; and
- That the discharge is consistent with applicable effluent standards and limitations, water quality standards, and other legally applicable requirements listed in WAC 173-216 and WAC 173-200.

The application for Longview Energy Development, L.L.C. (LED) was reviewed and indicates that no significant changes in the treatment characteristics of the effluent or volume of wastewater has occurred.

III. PERMIT REAUTHORIZATION

This fact sheet addendum accompanies the draft permit, which is to be reauthorized to Longview Energy Development L.L.C for the discharge of wastewater to the Cowlitz River through the existing outfall authorized for the Three Rivers Regional Wastewater Plant (Permit No. WA0037788) formerly known as the Cowlitz Water Pollution Control Plant. The previous fact sheet is also part of this administrative record and explains the basis for the discharge limitations and conditions of the reauthorized permit. This power generating facility has not been built, and no date is proposed for its construction.

The existing permit requirements, including discharge limitations and monitoring, do not need to be changed to protect the receiving water quality. The previous fact sheet addressed conditions

and issues at the facility at the time when the previous permit was issued, and statements made reflected the status in 2001. Since the issuance of the current permit, the Department has not received any information which indicates that environmental impacts from the discharge that were not evaluated at the time of the last permit issuance is persuasive enough to undertake a complete renewal of the permit. Since the existing permit was issued, the facility has not been constructed and therefore has not generated and discharged any wastewater. The reauthorized permit is virtually identical to the previous permit issued on December 13, 2001.

The discharge limits and conditions in effect at the time of expiration of the previous permit are carried over unchanged to this reauthorized permit. Assessment of compliance and inspections of the facility during the previous permit term indicate that the facility should not be placed on a high priority for permit renewal. The Department assigns a high priority for permit renewals in situations where water quality would materially benefit from a more stringent permit during the next five-year cycle.

The permit reauthorization process, in concert with the routine renewal of high priority permits, allows the Department to reissue permits in a timely manner and minimize the number of active permits that have passed expiration dates. A system of ranking the relative significance of the environmental benefit to be gained by renewing a permit rather than reauthorizing a permit is followed during the Department's annual permit planning process. Each permit that is due for reissuance is assessed and compared with other permits that are also due for reissuance. The public is notified and input is sought after the initial draft ranking has tentatively established which permits are likely to be completely renewed and which are likely to be reauthorized. All relevant comments and suggestions are considered before a final decision is made regarding the type of reissuance for each permit.

The only changes to the previous permit are the submittal date requirements and minor editorial revisions for clarification. Submittal requirements from the previous permit that were completed and submitted and do not require additional or continued assessment were left unchanged. The submittal dates for the other standard compliance and submittal requirements that have been carried over from the past permit into this reauthorized permit have been adjusted to the proposed permit schedule. The Department considered these submittals necessary in the previous permit and no information has come forward to cause a reconsideration of the submittal requirement.

Public notice of the availability of the draft reauthorized permit is required at least 30 days before the permit is issued [Washington Administrative Code (WAC) 173-220-050]. The fact sheet addendum and draft permit are available for review (see Appendix A—Public Involvement for more details on the Public Notice procedures).

After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file for the permit and parties submitting comments will receive a copy of the Department's response. Comments and the resultant changes to the permit will be summarized in the fact sheet addendum, Appendix B—Response to Comments.

IV. RECOMMENDATION FOR PERMIT ISSUANCE

The Department proposes that this permit be issued for 5 years, from July 1, 2006, through June 30, 2011.

APPENDIX A – PUBLIC INVOLVEMENT INFORMATION

The Department has determined to reauthorize a discharge permit to the applicant listed on page 1 of this fact sheet addendum. The permit contains conditions and effluent limitations that are described in the fact sheet.

Public notice of application was published on June 20, 2005, and June 30, 2005, in The Daily News to inform the public that an application had been submitted and to invite comment on the reauthorization of this permit.

The Department will publish a Public Notice of Draft (PNOD) on May 5, 2006, in *The Daily News* to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet addendum, and fact sheet are available fro inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Industrial Unit Permit Coordinator
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the 30-day comment period to the address above. The request for a hearing shall indicate the interest of the party and the reasons why the hearing is warranted. The Department will hold a hearing if it determines there is significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least 30 days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Comments should reference specific test followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result form reauthorization of this permit.

The Department will consider all comments received within 30 days from the date of the PNOD indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone at (360) 407-6365, or by writing to the address listed above.

APPENDIX B – RESPONSE TO COMMENTS

The Department of Ecology received comments on the proposed NPDES permit reauthorization for Longview Energy Development, LLC in Longview, Washington, WA 0037541 from Lauren Goldberg of the Columbia Riverkeeper on June 2, 2006 via e-mail. The letter consisted of comments followed by questions. Ecology has responded to each question and provides that response directly following each question, in the same order as in the original Columbia Riverkeeper letter. Thus, the entire letter is presented herein.

Ecology Overview:

- The proposed power generation facility has not been built, as stated in the Reauthorization Addendum to the Fact Sheet: "This power generating facility has not been built, and no date is proposed for its construction."

- If a buyer were to be found, the plans sold, and construction of the facility actually proposed, the permit would almost certainly need to be re-written. Some of the original assumptions would probably not be valid. If a viable proposal were made, the Department would be obligated to re-check the permit conditions and the assumptions upon which they were based.

- LED's permit is intimately tied to the operation of a reclaimed water treatment plant, which would provide the source of cooling water for LED. Since the power plant has not been built, neither has the reclaimed water plant. Reclaimed water would be generated by Three Rivers Regional Reuse Plant authorized by Permit No. ST 6182, not by the Three Rivers Regional Wastewater Plant (TRRWP) under Permit No. WA0037788.

- Neither facility has been built, therefore, no effluent data exists for either facility.

Columbia Riverkeeper letter, dated June 2, 2006:

RE: Comments on the proposed NPDES permit reauthorization for Longview Energy Development, LLC in Longview, Washington, WA 0037541.

Dear Ms. Greenup,

I am writing on behalf of Columbia Riverkeeper in opposition to the Department of Ecology's proposed reauthorization of Longview Energy Development NPDES permit for a facility in Longview, Washington discharging to the Columbia River. As proposed, the permit violates both state and federal law. Specifically, the permit fails to adequately account for the Columbia's 303(d) status and the state's Anti-degradation Policy. We request that the proposed reauthorization of LED's permit be withdrawn and that DOE draft a new permit in light of developments since the original Fact Sheet was developed in 2001 in order to ensure the permit protects the Columbia River and complies with state and federal law.

Columbia Riverkeeper is specifically concerned with the following issues in the proposed LED permit reauthorization:

1. Lack of current data on impact.
a. Effluent data relied on in permit is dated.

The applicant's reclaimed effluent data appears to be at least five years old, which raises concern that the data may not accurately reflect the applicant's discharges. Specifically, the data fails to reflect updated information on the water quality from reclaimed water from Three Rivers Regional Wastewater Plant (TRRWP) (Permit No. WA0037788) formerly known as the Cowlitz Water Pollution Control Plant, which may impact LED water treatment. The Fact Sheet (FS) states that "the reauthorized permit is virtually identical to the previous permit issued on December 13, 2001." FS Addendum at 2. Yet DOE's conclusion fails to address the changes since 2001 in the quantity of effluent discharged into the Outfall 001 mixing zone and changes in the toxic and temperature characteristics of TRRWP effluent discharge going to LED. The FS Addendum inadequately concludes that "the existing permit requirements, including discharge limitations and monitoring, do not need to be changed to protect the receiving water." FS Addendum at 1. Additionally, the proposed permit fails to consider whether pollution control technologies that constituted AKART five years ago still constitute AKART today.

Question #1: What evidence does DOE have to support the conclusion that applicant's effluent data remains accurate?

Ecology Response to Question #1

The Department agrees that data used to formulate the permit is now dated. The permit was based on POTW data and projected reclaimed water characteristics available in 2001. However, the project has not been built and no other data exists. Toxic effects, changes in toxic effects, and effects on salmonids due to this project do not exist, since the project has generated no effluent. The effluent characteristics of Three Rivers Regional Wastewater Plant have not been altered by this permit, since the facility does not discharge.

Question #2

What evidence does DOE have to support that possible changes in effluent from TRRWP will not alter the output of effluent from LED as described in the 2001 permit?

Ecology Response to Question #2

Effluent characteristics of TRRWP have not changed appreciably due to the upgrades, and therefore should have little or no change in effect on future operation or effluent characteristics of LED's influent water, and therefore little or no effect on LED's blowdown characteristics. However, as the flow through TRRWP increases, the percent diverted to LED would decrease, and thus the blended effluent dilution at the combined outfall would increase. Therefore, any influence of LED's effluent on the Columbia River would be reduced more than was predicted by modeling.

Question #3

How does TRRWP's "substantial expansion and upgrades," noted in the 2001 LED Permit Fact Sheet, impact the water quality and quantity characteristics of LED's TRRWP reclaimed water and shared LED/TRRWP mixing zone? FS at 18.

Ecology Response to Question #3

TRRWP's upgrades were primarily to increase capacity while maintaining and improving effluent quality. The effects on operation, treatment, and effluent quality from the reclaimed water plant should

not vary significantly from the predictions made before TRRWP's upgrades. Similarly, the effect on the mixing zone should be negligible. See the Department's response to question #2.

Question #4

What technical developments have occurred since the time of the previous permit that could constitute AKART?

Ecology Response to Question #4

The Department is aware of no new technical developments that impact AKART for this facility. Federal effluent guidelines for electric power generation facilities contain no technology-based limits for temperature or heat discharge.

b. Effect on salmonids and other sensitive and threatened species.

The Fact Sheet DOE prepared in 2001 along with the Addendum for the proposed reauthorized permit both lacks any mention of the sensitive, threatened or endangered species that occur in and around the applicant's outfalls. Characteristic uses include fish migration; fish rearing, spawning and harvesting; and wildlife habitat. (FS at 10-11). Yet the FS does not address the effect of LED's proposed reauthorized permit on salmonids and other sensitive and threatened species

The applicant does not appear to have prepared any comprehensive studies on the aquatic and terrestrial species that occur in the area of its outfall that would be affected by the proposed increase in toxics and heat in the mixing zone or downstream.

Question #5

Is it correct that the proposed mixing zone would allow for acutely toxic concentrations of pollutants?

Ecology Response to Question #5

The permit contains provisions for both acute and chronic mixing zones. The acute mixing zone recognizes the theoretical possibility that acute conditions could occur, under worse-case conditions, within that zone. WAC 173-201(A)-020 defines `acute condition' as "changes in the physical, chemical, or biological environment which are expected or demonstrated to result in injury or death to an organism as a result of short-term exposure to the substance or detrimental environmental condition."

Question #6

What species are likely to be affected by this zone of acute toxicity and what effects would this zone have on these species? Was this analyzed by DOE when TRRWP obtained its NPDES mixing zone permit and if so where?

Ecology Response to Question #6

The Department does not have a comprehensive list of species that might occur in receiving waters. Permit applications do not require evaluation of this type of site-specific information.

Question #7

How is allowing for this contribution to the currently permitted mixing zone protect beneficial uses listed in the Fact Sheet?

Ecology Response to Question #7

Washington State's water quality standards are designed to protect beneficial uses in the receiving water.

Question #8

What effect will the LED's increased load of chlorine into the mixing zone generally have on juvenile salmonids migrating down stream when considered cumulative with TRRWP and Longview Fibre's impact on the mixing zone?

Ecology Response to Question #8

The water quality standards for chlorine and other parameters are developed by considering the most sensitive species from toxicity testing. The mixing zone study used data from TRRWP and Longview Fibre. Also, if the facility was ever to be built, the permit requires whole effluent toxicity testing.

Question #9

On the basis of what studies does DOE found its conclusion that LED's contribution of effluent to the mixing zone will not cause a loss to sensitive or important habitat?

Ecology Response to Question #9

No data exists to show that a loss of habitat will occur. Also, see the response to question #8.

2. Specific Effluent Limitation Concerns.

a. Temperature.

In compliance with Section 303(d) of the Clean Water Act, the State of Washington lists the Columbia River as failing to meet water quality standards for temperature. Yet, LED's permit will allow the applicant to discharge effluent with a temperature up to 85 ºF to enter the Columbia River, thus adding heat to a listed river.

Question #10

The Fact Sheet claims that LED will reduce thermal loading entering the Columbia. When using reclaimed water, how will LED reduce the thermal loading currently going to the Columbia when reclaimed water will be used for cooling purposes, thus raising the temperature of the water? FS at 13.

Ecology Response to Question #10

The Department acknowledged and addressed this issue extensively in the fact sheet:

"Temperature is the primary water quality parameter with a potential for impact from the LED project." (Fact Sheet p. 13).

The Department predicted that, if built, LED would reduce the thermal load to the Columbia River:

> "The use of reclaimed water from the TRRWP plant will fully mitigate the thermal loading from the LED project, thus complying with the policy cited above. The LED project will produce a net reduction in heat load to the Columbia River when compared to the current TRRWP discharge without the LED project. At critical summer conditions, the thermal load of the current TRRWP discharge is 309 million Btu/day. With the LED project, the heat load of 0.3 mgd of 85 ^{o}F blowdown water (43 million Btu/day) would be more than offset by the reduced load from the TRRWP effluent flow (108 million Btu/day). The use of LED's primary cooling source, reclaimed water, would produce a net reduction of 65 million Btu/day to the Columbia River." (Fact Sheet p. 13).

Question #11

On what basis does DOE conclude that LED will mitigate heat entering the Columbia when LED will increase the temperature of reclaimed effluent?

Ecology Response to Question #11

By reducing the volume of wastewater- most of it evaporates and does not get discharged.

Actually, this assumption above is conservative and probably underestimates the amount of thermal load reduction. Riverkeeper incorrectly states that LED's permit allows the discharge of effluent with a temperature up to 85 °F to enter the Columbia River. The 85 degree limit would apply at the proposed power plant location, more than one mile from the outfall to the Columbia River (see the diagrams in the fact sheet). Realistically, heat would be removed from LED effluent in the long underground pipe system. The temperature would be less than 85^{O}F before mixing with the POTW effluent prior to discharge to the Columbia River.

Question #12

Will DOE alter TRRWP current permit to reflect a decrease in allowable output that will be diverted to LED (i.e. 2.3 MGD, FS at 3)? If not, is the Fact Sheet incorrect in asserting that LED will reduce the thermal loading currently going to the Columbia?

Ecology Response to Question #12

The answer appears to be "no"- the POTW permit is not required to send part of their effluent to LED, but allows it if LED needs it. This creates no inconsistency with the fact sheet. If built, LED will reduce thermal loading to the river. If it is not built, the reduction will not occur.

Question #13

DOE concludes that LED's blowdown water temperature of 85ºF (29.4ºC) "will meet water quality standards at the mixing zone boundary due to the Cowlitz River influence." Is this assertion valid when TRRWP and Longview Fibre's heat contributions to the mixing zone are accounted for?

Ecology Response to Question #13

Yes. The combined impacts of the two mixing zones were considered in the water quality mixing zone report. This report is available for public review.

Question #14

The FS asserts that Longview Fibre, a nearby point source, "is also a significant source of heat" whose outfall flows through the TRRWP mixing zone LED will be contributing to. What will the added impact of LED's heat, in addition to Longview Fibre's contribution, on the temperature of the mixing zone and downstream of the mixing zone?

Ecology Response to Question #14

TRRWP and Longview Fibre effluents were the main sources of heat considered in the engineering report and modeling. Riverkeeper is invited to review the files at the Department's Southwest Regional Office, specifically the engineering report. See the Department's response to question #13.

b. Toxics

> Under the proposed permit, applicant will increase the chlorine load entering the Columbia through use of chlorine in the cooling process. The Fact Sheet recognizes that DOE must consider 91 numeric water quality criteria for the protection of human health promulgated by EPA. In authorizing the additional load of chlorine to the Columbia, DOE does not address the potential impact on human health or other species passing through the mixing zone or downstream. Additionally, when LED relies on the groundwater source for cooling, addition toxicants will enter the Columbia. FS at 17. The added toxicants include ammonia, chlorine, copper, lead, mercury, and silver. Washington Water Quality Standards for Surface Waters states that:
>
> > "Toxic substances shall not be introduced above natural background levels in waters of the state which have the potential singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic toxicity to the most sensitive biota dependent upon waters, or adversely affect public health, as determined by the department." WAC 173-201A-240.

Question #15

In authorizing LED to increase the toxics entering the Columbia, on what basis does DOE conclude that the permit will not violate the above Water Quality Standard requirement?

Ecology Response to Question #15

The Department's permits must ensure that water quality standards will be met for toxic pollutants.

Question #16: In the Fact Sheet, DOE concludes that "the applicant will not discharge additional chemicals of concern based on existing data and knowledge." FS at 19.

A. Due to the outdated nature of the Fact Sheet, is this assertion still valid?

B. What evidence does DOE have to support the conclusion that the "the applicant will not discharge additional chemicals of concern based on existing data and knowledge"?

Ecology Response to Question #16

A. Yes, based on existing data and knowledge.

B. The permit requires periodic testing for priority pollutants and whole effluent toxicity.

b. Protection of characteristic, existing and beneficial uses, and Antidegradation policy

The purpose of Washington's Antidegradation Policy is to: "Ensure that all human activities that are likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART)." WAC 173-201A-300. Yet, LED's permit does not meet this standard by failing to use reasonable AKART measures to reduce the temperature of reclaimed water used in LED's cooling process, which will enter the 303(d) listed waterbody at 85 ºF.

Question #17

What additional AKART measures could be applied that the applicant is not currently applying?

Ecology Response to Question #17

The Department believes that all necessary and reasonable AKART requirements were included in the permit as written. The permit includes requirements that goes beyond federal categorical effluent limits.

Question #18

If the applicant is required to employ technological measure to cool water to 68 ºF when using well water, why do AKART measures not apply to cool reclaimed effluent to 68 ºF, rather than the current permit limit of 85 ºF?

Furthermore, Washington's Antidegradation Policy states that: "Existing and designated uses must be maintained and protected." (Italics added). Yet, DOE's evaluation of applicant's permit only concludes that the "proposed permit should not cause loss of beneficial uses." (Italics added, FS at 10). DOE's conclusion fails to reach the Antidegradaiton Policy's threshold level by failing to adequately if the permit will maintain and protect the existing and designated uses.

Ecology Response to Question #18

If ground water is used, thermal loading to the river from POTW effluent is not reduced due to reduced TRRWP effluent volume, therefore a net thermal loss does not happen. Therefore, the effluent temperature limit of 68 degrees is necessary to ensure compliance with the applicable standard. See the fact sheet and engineering report for further details.

Question #19

What evidence does DOE to conclude that the "proposed permit should not cause of loss of beneficial uses"? FS at 10.

WAC 173-201A-030(2)(c)(iv) states that "[t]emperature shall not exceed 18.0 °C (freshwater) or 16.0 °C (marine water) due to human activities. When natural conditions exceed 18.0 °C (freshwater) and 16.0 °C (marine water), no temperature increases will be allowed which will raise the receiving water temperature by greater than 0.3 °C."

Although DOE recognizes 18 ºC as the temperature that is actually minimally necessary to protect salmonid uses, such as, spawning, rearing and migration, DOE raised the standard to 20 ºC on the Columbia despite scientific evidence that warned against it. Any DOE analysis that assumes a 20 ºC temperature standard would not ensure the protection of salmonids since salmonids require substantially lower temperatures, as has been recognized by EPA, NMFS and experts in numerous other agencies. Dale McCullough's, "A Review and Synthesis of Effects of Alterations to the Water Temperature Regime on Freshwater Life Stages of Salmonids, with Special Reference to Chinook Salmon," provides compelling evidence that the overwhelming body of scientific information does not support that salmonids will be protected at 20 °C. Dale A. McCullough, PhD. February 22, 1999 EPA 910-R-99-010.

Ecology Response to Question #19

The Department has no evidence that the proposed permit would cause a loss of beneficial uses. The Department's water quality standards are designed to protect beneficial uses. The applicable temperature standard is 20 °C.

Question #20

Keeping in mind that DOE's duty to protect beneficial uses is in addition to the requirement to comply with numeric temperature standards, on what scientific basis does DOE believe (if it does believe this) that a 20 ºC temperature standard would be protective of salmonid migration, rearing and spawning?"

Ecology Response to Question #20

The surface water quality standards were developed using scientific techniques. A public comment period was provided before the standards were approved.

3. Conclusion.

For the aforementioned reasons, DOE should withdraw LED's proposed reauthorized permit and revise the permit to recognize state and federal law. Specifically, DOE must account for requirements for a NPDES permit authorizing effluent into 303(d) listed waterbody and adhere to the state's Antidegrdation Policy.

If you have any questions please feel free to contact me. Please keep Columbia Riverkeeper informed through mailings or e-mail regarding Ecology's decision on whether to re-issue the proposed LED reauthorized NPDES permit.

Conclusion Response

The Department believes that this permit is legal and adequately applies existing and appropriate water quality laws. Withdrawal of this permit would provide no additional benefit to the Columbia River. Therefore, the Department will reauthorize this permit as planned.